



## City of Biggs

### **Agenda Item Staff Report for the next regular City Council Meeting: June 12, 2012 6:30PM**

DATE: May 29, 2012  
TO: Honorable Mayor and Members of the City Council  
FROM: Steve Speights, City Engineer  
SUBJECT: Sanitary Sewer Management Plan (Discussion/Action)

Establishes a Sanitary Sewer System Management Plan (SSMP) for the City of Biggs.

#### **Background:**

The City of Biggs filed a Notice of Intent with the State Water Resources Control Board (SWRCB) to be covered under the Statewide General Sanitary Sewer Systems Waste Discharge Requirements (WDR). The WDR includes a requirement for the City to develop and adopt a Sanitary Sewer System Management Plan and certify completion of the plan in the State online database.

The City completed and certified to the State, the first three elements of the SSMP, but has failed to complete the SSMP or certify its completion. The City has received a Notice of Violation from the SWRCB because of this failure to complete and certify the SSMP. The City has until July 9, 2012 to comply or face civil liabilities of up to \$5000 per day.

The SSMP is intended to provide a proactive approach to the operation and maintenance of the sewer system to reduce the occurrence and severity of sewage overflows and thereby reduce the risk to human health and the environment. Major causes of sewage overflows include grease blockages, root blockages, pump station mechanical failures, stormwater inflow and groundwater infiltration.

Staff has prepared a SSMP for Council adoption that meets the requirements of the WDRS. The Introduction and Purpose sections are attached to this staff report. The full document is available for review in City Hall.

Also attached is Scope and Fee Estimate for Bennett Engineering to prepare the SSMP for certification

**Recommendation:**

1. Staff recommends Council approve Task Order Scope and Fee Estimate Number 11 for Bennett Engineering in the amount of \$8,043
2. Staff recommends that the Council approve the SSMP for the City of Biggs by voice vote and direct staff to certify its completion in the State database.

**Fiscal Impact:**

Annual budgeting impact to comply with SSMP should be minor for record keeping and performance audits.

**Attachments:**

Notice of Violation and online record;

Introduction and Purpose of SSMP

Bennett Engineering Scope and Fee Estimate for SSMP



EDWARD G. BROWN JR.  
GOVERNOR

MATTHEW RODRIGUEZ  
SECRETARY FOR  
ENVIRONMENTAL PROTECTION

## State Water Resources Control Board

WDID#: 5SSO10789

4/10/2012

HAYDEN WASSER  
BIGGS CITY  
P.O. BOX 307  
BIGGS, CA 95917

### **SUBJECT: NOTICE OF VIOLATION FOR BIGGS CITY, BUTTE, CA**

This letter is issued pursuant to Statewide General Sanitary Sewer Systems Waste Discharge Requirements – Water Quality Order No. 2006-0003-DWQ (SSS WDRs),<sup>(1)</sup> their companion Monitoring and Reporting Program Order No. 2008-0002-EXEC,<sup>(2)</sup> and California Water Code sections 13260 and 13263. This letter identifies BIGGS CITY's sanitary sewer collection system (BIGGS CS, 5SSO10789) violations under the SSS WDRs.

The SSS WDRs require all public agencies that own or operate a sanitary sewer system over one mile of pipe in contiguous length which conveys wastewater to a publicly owned treatment facility to apply for coverage under the SSS WDRs and to comply with their provisions.

Our records indicate that your agency, BIGGS CITY, filed a Notice of Intent with the State Water Resources Control Board (State Water Board) to enroll for coverage under the SSS WDRs for the BIGGS CS.

As an enrollee, BIGGS CITY is required to comply with the terms of the SSS WDRs and Monitoring and Reporting Program Order No. 2008-0002-EXEC. As such, BIGGS CITY must use the online California Integrated Water Quality System (CIWQS, <http://ciwqs.waterboards.ca.gov/>) database to enter the completion dates for each element of its Sanitary Sewer System Management Plan (SSMP) and to certify completion of the plan

- The CIWQS database, directions and information is located at:  
[http://www.waterboards.ca.gov/water\\_issues/programs/ciwqs/](http://www.waterboards.ca.gov/water_issues/programs/ciwqs/)
- The CIWQS help center for the Sanitary Sewer Overflow Reduction Program is at:  
[http://www.waterboards.ca.gov/water\\_issues/programs/ciwqs/chc\\_sso.shtml](http://www.waterboards.ca.gov/water_issues/programs/ciwqs/chc_sso.shtml)

(1) [http://www.waterboards.ca.gov/board\\_decisions/adopted\\_orders/water\\_quality/2006/wqo/wqo2006\\_0003.pdf](http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2006/wqo/wqo2006_0003.pdf)

(2) [http://www.waterboards.ca.gov/board\\_decisions/adopted\\_orders/water\\_quality/2008/wqo/wqo2008\\_0002\\_exec.pdf](http://www.waterboards.ca.gov/board_decisions/adopted_orders/water_quality/2008/wqo/wqo2008_0002_exec.pdf)

CHARLES R. HOPPIN, CHAIRMAN | THOMAS HOWARD, EXECUTIVE DIRECTOR

1001 I Street, Sacramento, CA 95814 | Mailing Address: P.O. Box 100, Sacramento, CA 95812-0100 | [www.waterboards.ca.gov](http://www.waterboards.ca.gov)

## NOTICE OF VIOLATION (NOV)

The State Water Board staff has determined that BIGGS CITY violated the SSS WDRs for BIGGS CS, 5SSO10789 by failing to timely certify any or all of the SSMP requirements in CIWQS (See SSS WDRs page 15, section D, provisions 14 and 15).

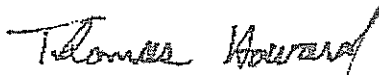
BIGGS CITY has until 7/9/2012 to come into compliance with the SSS WDRs. If the BIGGS CITY is not in compliance by this date, State Water Board staff will pursue additional enforcement measures. In response to this NOV, you must do the following:

- If you have not completed your agency's SSMP requirements, you must immediately complete them, and certify in CIWQS that you have completed them.
- If you have completed your agency's SSMP requirements, but you have not certified their completion in CIWQS, you must immediately certify in CIWQS that you have completed them.

Failure to comply with the SSS WDRs and Monitoring and Reporting Program Order No. 2008-0002-EXEC may subject you to civil liabilities of up to \$5,000 a day pursuant to Water Code section 13350. The matter may be also referred to the Attorney General or District Attorney for other civil and/or criminal actions. The State Water Board reserves its right to take any further enforcement action authorized by law.

For SSS WDRs questions, please contact Victor Lopez at (916) 323-5511 or [vlopez@waterboards.ca.gov](mailto:vlopez@waterboards.ca.gov).

Sincerely,



Thomas Howard  
Executive Director

cc:

Pamela Creedon  
11044 Sun Center Drive, Suite 200  
Rancho Cordova, CA 95670-6114

James Fischer, P.E.  
Office of Enforcement  
State Water Resources Control Board  
1001 I St, 16th Floor  
Sacramento, CA 95814


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SSO - Sewer System Management Plan (SSMP) 

SSO Menu

Regional Water Board: Region SR - Redding  
 Agency: Biggs City  
 Sanitary Sewer System: Biggs CB  
 WQID: 5SS010780

| SSMP Element  | Certification Date  |
|---|---|
| Development Plan and Schedule                                   | <input type="text" value="01/28/2008"/> (Date Format: MM/DD/YYYY) |
| Section I - Goal  | <input type="text" value="02/22/2008"/> (Date Format: MM/DD/YYYY) |
| Section II - Organization                                       | <input type="text" value="02/22/2008"/> (Date Format: MM/DD/YYYY) |
| Section III - Legal Authority                                   | <input type="text"/> (Date Format: MM/DD/YYYY)                    |
| Section IV - Operation & Maintenance Program                    | <input type="text"/> (Date Format: MM/DD/YYYY)                    |
| Section V - Design & Performance Provisions                     | <input type="text"/> (Date Format: MM/DD/YYYY)                    |
| Section VI - Overflow Emergency Response Plan                   | <input type="text"/> (Date Format: MM/DD/YYYY)                    |
| Section VII - FOG Control Program                               | <input type="text"/> (Date Format: MM/DD/YYYY)                    |
| Section VIII - System Evaluation & Capacity Assurance Plan      | <input type="text"/> (Date Format: MM/DD/YYYY)                    |
| Section IX - Monitoring, Measurement, and Program Modifications | <input type="text"/> (Date Format: MM/DD/YYYY)                    |
| Section X - SSMP Program Audits                                 | <input type="text"/> (Date Format: MM/DD/YYYY)                    |
| Section XI - Communication Program                              | <input type="text"/> (Date Format: MM/DD/YYYY)                    |
| Complete SSMP Implementation                                    | <input type="text"/> (Date Format: MM/DD/YYYY)                    |

Note: 'Complete SSMP Implementation' is only available for input only if all its above sections filled.

Note: The Certification Note and Certified By fields disappear after certifying your SSMP. Previous entries can be seen on the Historic SSMP information screen.

Certification Note:

5-Year Update:  (Date Format: MM/DD/YYYY)

\* Certified by:

Note: Questions with "\*" are required to be answered before CERTIFY.

***City of Biggs***

***Sewer System Management Plan***

***May 29, 2012***

***Prepared by***

***Bennett Engineering Services***

***1082 Sunrise Ave, Suite 100***

***Roseville, CA 95661***

## ***Introduction***

On May 2, 2006 the State Water Resources Control Board (SWRCB) adopted the Statewide General Waste Discharge Requirements (GWDR) for Sanitary Sewer Systems, herein referred to as the “General Order”. The purpose of this General Order is to insure that wastewater collection systems are properly operated and maintained by the municipalities that are in charge of their operations. The General Order applies to all public collection system agencies in California that own or operate collection systems comprised of more than one mile of pipe or sewer lines and convey untreated wastewater to a publicly owned treatment facility. The principal elements of the order include requiring each agency to prepare a Sewer System Management Plan (SSMP) which outlines how the municipality operates and maintains the collection system, and reporting of all Sanitary Sewer Overflows (SSOs) to the SWRCB’s online SSO database (CIWQS). The Sanitary Sewer Order, Monitoring and Reporting Program, the City’s Notice of Intent, Legally Responsible Official and Data Submitter documents can be viewed in *Appendix A*.

Prior to the issuance of the Order, the City of Biggs was operating their collection system in accordance with an individual collection system permit issued to the City by the Regional Water Quality Control Board (RWQCB). This individual permit contained many of the same elements as the General Order, which allowed the City to have many of the program elements in place well ahead of the timelines required in the General Order.

The City of Biggs operates and maintains 8 miles of 6 inch to 12 inch diameter pipelines and 3 active pump stations. The City of Biggs primary customers are residential, industrial, and commercial customers. Most of the wastewater generated within the City originates from residential users.

## ***Purpose***

The purpose of the City of Biggs Sewer System Management Plan (SSMP) is to document activities that the City utilizes to manage its wastewater collection system effectively. Effective management of a collection system includes:

- Minimizing the number and impact of sanitary sewer overflows (SSOs)
- Providing adequate sewer capacity to convey peak flows.
- Maintaining and/or improving the collection system infrastructure in a reliable condition now and as the system grows.

## ***Document Organization***

This SSMP has been prepared for the City of Biggs Department of Public Works by City Staff in compliance with requirements of the Central Valley Regional Water Quality Control Board (RWQCB) pursuant to section 13267 of the California Water Code.

The SSMP is intended to meet the requirements of both the RWQCB and the Statewide General Waste Discharge Requirements (WDR).

The SSMP includes eleven elements as listed below. Each of these elements forms a section of this document.

#### **SSMP ELEMENTS**

1. Collection System Management Goals
2. Organization
3. Legal Authority
4. Operations and Maintenance Program
5. Design and Construction Standards
6. Overflow and Emergency Response Program
7. Fats, Oils and Grease (FOG) Control Program
8. Capacity Management and System Evaluation Plan
9. Monitoring, Measurement & Effectiveness Measurements
10. SSMP Program Audits
11. Communication & Implementation Program

### **Location and Description Wastewater Collections System**

The City of Biggs has a population of 1,707 and is located in the fertile farmlands of the Sacramento Valley about an hour north of Sacramento. Known as the "heart of rice country," Biggs is approximately 25 miles south of the City of Chico and 25 miles north of Yuba City, just off State Route 99, at an elevation of 93 feet.

The City of Biggs operates a sanitary sewer collection system drawing all wastewater from the city through a subterranean network of pipes and lift stations. The waste is treated at the City's wastewater treatment plant, located on approximately 5 acres in the southwest portion of the city, in a system of facultative ponds. The treatment plant was upgraded in 2000, and is planned for additional upgrades in 2013-2015.

The collection system consists of mostly 6 and 8 inch diameter piping and transports sewage to one of three lift stations. With the treatment plant upgrade in 2000, approximately 7500 lineal feet of collection and transport main were also upgraded, however the city still experiences significant I&I (infiltration of stormwater from the ground into the sewer pipes) during the wintertime.

The City received a renewed five-year license to operate the treatment plant in 2007 from the Regional Water Quality Control Board. Certified operators in the City's Public Works Department maintain the system daily and take weekly samples to testing labs. The treatment plant provides high quality secondary treatment of effluent and discharges to an agricultural drain known as lateral K. Average daily flows are around 0.3 MGD (million gallons a day), however wintertime flows approach 1.0 MGD. The treatment facility is currently in compliance with state regulations and operates under a permit of waste discharge and NPDES permit.



## Terms and Definitions

Nuisance – California Water Code section 13050, subdivision (m), defines nuisance as anything which meets all of the following requirements:

- (a) Is injurious to health, or is indecent or offensive to the senses, or an obstruction to the free use of property.
- (b) Affects at the same time an entire community or neighborhood, or any considerable number of persons, although the extent of the annoyance or damage inflicted upon individuals may be unequal.
- (c) Occurs during, or as a result of, the treatment or disposal of wastes.

Sanitary Sewer Overflow (SSO) – Any overflow, spill, release, discharge or diversion of untreated or partially treated wastewater from a sanitary sewer system. SSOs include

- (a) Overflows or releases of untreated or partially treated wastewater that reaches waters of the United States;
- (b) Overflows or releases of untreated or partially treated wastewater that do not reach waters of the United States; and
- (c) Wastewater backups into buildings and on private property that are caused by blockages or flow conditions within the publicly owned portion of a sanitary sewer system.

SSO Reporting System – Online spill reporting system that is hosted, controlled, and maintained by the State Water Board. The Web address for this site is <http://ciwqs.waterboards.ca.gov>. This online database is maintained on a secure site and is controlled by unique usernames and passwords.

Untreated or partially treated wastewater – Any volume of waste discharged from the sanitary sewer system upstream of the wastewater treatment plant headworks.

## 1. SSMP Goals

The Department of Public Works utilizes preventative maintenance practices in their efforts to properly maintain and operate the sanitary sewer collection system. Sewer Maintenance works in tandem with the Contract City Engineer in efforts to improve the condition of and extend the life of collection system assets. The Department of Public Works has developed this SSMP to achieve the following collection system management goals and objectives listed below. These goals and objectives have been adopted into the budget.

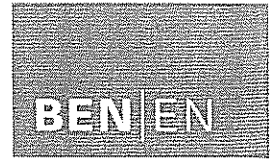
- Proper maintenance, operations and management of all parts of the wastewater collection system.
- Provision for adequate capacity in the collection system to convey peak flows.
- Minimize the frequency of sanitary sewer overflows (SSOs).
- Mitigate the impact of SSOs.

The SSMP objectives are outlined, implemented, evaluated Sewer Maintenance and Preventative Maintenance Program include:

1. Increase Preventative Maintenance on the collection system to decrease SSOs.
  - Clean all City sewer mains within the identified required maintenance period.
  - Continue with monthly, quarterly, bi-annual and annual preventative maintenance hydro-cleaning and power-rod cleaning of identified sewer mainline target (problem) areas.
  - Conduct a video condition assessment of each sewer mainline every five years and continuously identify areas requiring root control.
  - Refer sewer mains with repeat non-scheduled maintenance to Contract City Engineer for evaluation.
  - Conduct appropriate analysis/evaluation of SSOs utilizing historical maintenance and activity data and records and provide recommendations to reduce future risk.
2. Identify collection system blockages due to fats, oil and grease (FOG) and develop strategies to decrease backups.
3. Operate all pump stations at peak efficiency and perform preventative maintenance on equipment at all sanitary sewer pump stations.
4. Maintain records of the sanitary sewer system and respond to inquiries.
5. Assist with the development of a capital improvement program directed at maintaining the current sewer assets, improving system reliability and providing adequate future capacity.

# EXHIBIT A: Scope of Services Task Order 11

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BENNETT ENGINEERING SERVICES INC.  
Bennett Engineering Services Inc.  
1000 University Avenue, Suite 300  
Ottawa, Ontario K1N 6N5

T 613-736-1111  
F 613-736-1111  
www.bennet-en.com

Client: City of Biggs  
Consultant: Bennett Engineering Services Inc.  
Project: Sanitary Sewer Maintenance Plan (SSMP)  
Date: May 30, 2012

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## **TASK 1. Project Management**

Project management, review, and coordination by City Engineer

## **TASK 2. Project Delivery**

Gather needed information from City staff, review draft sections with City staff

## **TASK 3. Complete Sanitary Sewer Management Plan (SSMP)**

Complete draft sections of the SSMP for review with staff. Complete SSMP for certification to State Water Resources Control Board.

# EXHIBIT B: Fee Estimate Task Order 11

TO AGREEMENT BETWEEN CLIENT AND CONSULTANT

Client: City of Biggs

Consultant: Bennett Engineering Services Inc

Project: Sewer System Management Plan (SSMP)

Date: May 30, 2012



| Fee Estimate   |          | City Engineer<br>Speights, S<br>105 \$/hr |         | Engineer II<br>Lamb, S<br>128 \$/hr |         | Administrative<br>Staff<br>56 \$/hr |       | BENJEN<br>Subtotal |         | MISC.<br>EXPENSES | TOTAL   |
|--|----------|---|---------|-------------------------------------|---------|-------------------------------------|-------|--------------------|---------|-------------------|---------|
|  |          | Qty                                       | Cost    | Qty                                 | Cost    | Qty                                 | Cost  | Qty                | Cost    |                   |         |
| Task 1 - Project Management                                |          |   |         |                                     |         |                                     |       |                    |         |                   |         |
| 1.1 - Project Management                                   |          | 17 hrs                                    | \$1,785 | hrs                                 | \$0     | hrs                                 | \$0   | 17 hrs             | \$1,785 | \$300             | \$2,085 |
|  | Subtotal | 17 hrs                                    | \$1,785 | hrs                                 | \$0     | hrs                                 | \$0   | 17 hrs             | \$1,785 | \$300             | \$2,085 |
| Task 2 - Phase 1 - Project Delivery                        |          |   |         |                                     |         |                                     |       |                    |         |                   |         |
| 2.1 - Meetings, Team Coordination and Field Review         |          | hrs                                       | \$0     | 6 hrs                               | \$768   | hrs                                 | \$0   | 6 hrs              | \$768   | \$40              | \$808   |
| 2.2 - Status Reports                                       |          | hrs                                       | \$0     | 1 hrs                               | \$128   | 1 hrs                               | \$56  | 2 hrs              | \$184   | \$10              | \$194   |
|  | Subtotal | hrs                                       | \$0     | 7 hrs                               | \$896   | 1 hrs                               | \$56  | 8 hrs              | \$952   | \$50              | \$1,002 |
| Task 3 - Document Preparation & Review                     |          |   |         |                                     |         |                                     |       |                    |         |                   |         |
| 3.1 - Collection System Management Goals                   |          | hrs                                       | \$0     | 1 hrs                               | \$128   | 1 hrs                               | \$56  | 2 hrs              | \$184   | \$10              | \$194   |
| 3.2 - Organization of personnel                            |          | hrs                                       | \$0     | 2 hrs                               | \$256   | 2 hrs                               | \$112 | 4 hrs              | \$368   | \$20              | \$388   |
| 3.3 - Legal Authority                                      |          | hrs                                       | \$0     | 2 hrs                               | \$256   | 1 hrs                               | \$56  | 3 hrs              | \$312   | \$20              | \$332   |
| 3.4 - Operations and Maintenance Program                   |          | hrs                                       | \$0     | 2 hrs                               | \$256   | 1 hrs                               | \$56  | 3 hrs              | \$312   | \$20              | \$332   |
| 3.5 - Design and Construction Standards                    |          | hrs                                       | \$0     | 2 hrs                               | \$256   | 1 hrs                               | \$56  | 3 hrs              | \$312   | \$20              | \$332   |
| 3.6 - Overflow and Emergency Response Program              |          | hrs                                       | \$0     | 5 hrs                               | \$640   | 2 hrs                               | \$112 | 7 hrs              | \$752   | \$40              | \$792   |
| 3.7 - Fats, Oils and Grease (FOG) Control Program          |          | hrs                                       | \$0     | 3 hrs                               | \$384   | 1 hrs                               | \$56  | 4 hrs              | \$440   | \$20              | \$460   |
| 3.8 - Capacity Management and System Evaluation Plan       |          | hrs                                       | \$0     | 6 hrs                               | \$768   | 1 hrs                               | \$56  | 7 hrs              | \$824   | \$40              | \$864   |
| 3.9 - Monitoring, Measurement & Effectiveness Measurements |          | hrs                                       | \$0     | 4 hrs                               | \$512   | 1 hrs                               | \$56  | 5 hrs              | \$568   | \$30              | \$598   |
| 3.10 - SSMP Program Audits                                 |          | hrs                                       | \$0     | 2 hrs                               | \$256   | 1 hrs                               | \$56  | 3 hrs              | \$312   | \$20              | \$332   |
| 3.11 - Communication & Implementation Program              |          | hrs                                       | \$0     | 2 hrs                               | \$256   | 1 hrs                               | \$56  | 3 hrs              | \$312   | \$20              | \$332   |
|  | Subtotal | hrs                                       | \$0     | 31 hrs                              | \$3,968 | 13 hrs                              | \$728 | 44 hrs             | \$4,696 | \$260             | \$4,956 |
| PROJECT TOTAL  |          | 17 hrs                                    | \$1,785 | 38 hrs                              | \$4,864 | 14 hrs                              | \$784 | 69 hrs             | \$7,433 | \$610             | \$8,043 |

\* All fees are subject to change with 30-day notice.

\* This fee estimate contains an abbreviated list of staff classifications and does not reflect BENJEN to those classifications. Please use the Standard Rate Schedule for a full list of staff.

\* This fee estimate is valid for 90 days.

INITIALS: